

Unit 4 - Week 2

Course outline

How does an NPTEL online course work?

Practice Assignment

Week 1

Week 2

Lecture 6 : Antenna Radiation Hazards-I

Lecture 7 : Antenna Radiation Hazards-II

Lecture 8 : Dipole Antennas-I

Lecture 9 : Dipole Antennas-II

Lecture 10 : Dipole Antennas-III

Study Material

Quiz : Assignment-2

Assignment-2 Solution

Download Videos

Weekly Feedback

Week 3

Week 4

Week 5

Week 6

Week 7

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Week 11

Week 12

Text Transcripts

Assignment-2

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-02-12, 23:59 IST.

1) WHO has classified overhead high voltage transmission lines as:

2 points

- Class 1- carcinogen to human
 Class 2A- probable carcinogen to human
 Class 2B- possible carcinogen to human
 Class 3- not classifiable as to its carcinogenicity to humans

No, the answer is incorrect.
Score: 0

Accepted Answers:
Class 2B- possible carcinogen to human

2) People living within _____ meter in the main beam of cell tower antenna are considered to be in extremely high radiation zone.

2 points

- 50
 100
 200
 300

No, the answer is incorrect.
Score: 0

Accepted Answers:
50

3) The length of dipole antenna is 25 mm at 900 MHz with wire diameter of 2 mm, what will be current distribution of the antenna?

2 points

- Uniform
 Triangular
 Sinusoidal
 None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Triangular

4) R_{in} of a dipole antenna of length 5 cm at $f = 400$ MHz is _____. The Z_{in} of this antenna will be inductive or capacitive?

2 points

- 0.8Ω , inductive
 0.8Ω , capacitive
 3.2Ω , inductive
 3.2Ω , capacitive

No, the answer is incorrect.
Score: 0

Accepted Answers:
 0.8Ω , capacitive

5) Design a dipole antenna at 0.7 GHz of diameter 4 mm. The approximate length in cm is:

2 points

- 10
 20
 30
 40

No, the answer is incorrect.
Score: 0

Accepted Answers:
20

Common Data for Questions 6 and 7: A printed dipole antenna is designed at 2.45 GHz on FR4 substrate having $\epsilon_r=4.4$, $h=0.16$ cm and $\tan\delta = 0.02$. If the width of a printed dipole antenna is 0.5 cm,

6) The approximate resonant length of the printed dipole antenna in cm is :

2 points

- 6.6
 5.1
 3.4
 2.7

No, the answer is incorrect.
Score: 0

Accepted Answers:
5.1

7) Approximate gain of this printed dipole antenna in dBi is:

2 points

- 5
 4
 2
 1.5

No, the answer is incorrect.
Score: 0

Accepted Answers:
2

8) The input resistance (R_{in}) of a 3-fold dipole antenna whose length L satisfies $L+d=0.48\lambda$ is approximately :

2 points

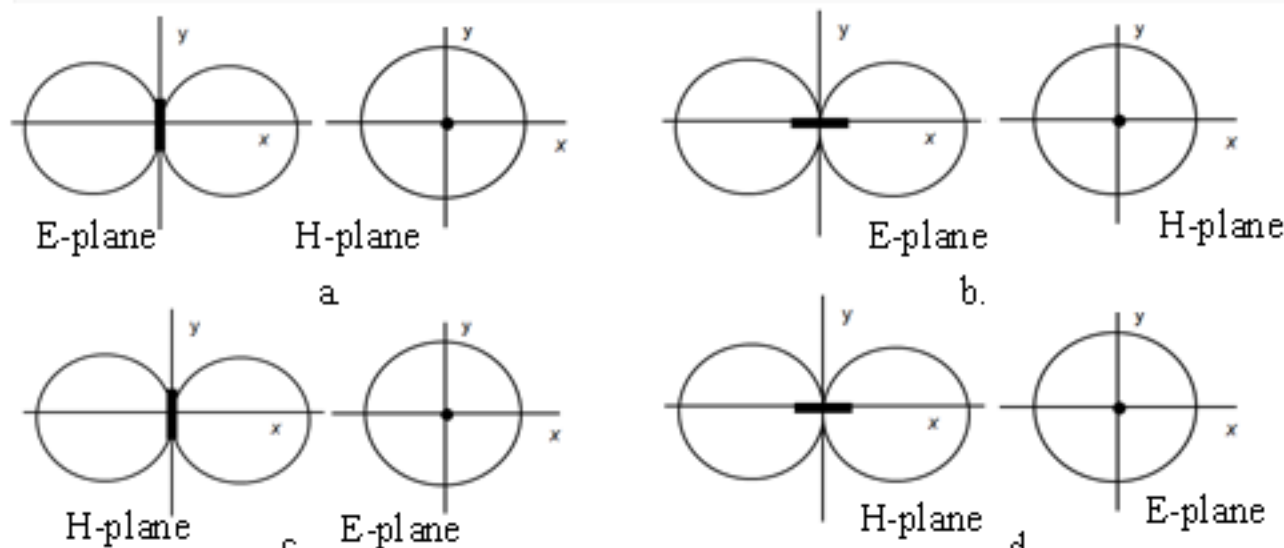
- 136Ω
 150Ω
 272Ω
 612Ω

No, the answer is incorrect.
Score: 0

Accepted Answers:
 612Ω

9) The radiation pattern of a small dipole antenna is:

2 points



- (a)
 (b)
 (c)
 (d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
(a)

10) Bandwidth of a dipole antenna can be increased by :

2 points

- Increasing the diameter
 Using Printed bow-tie configuration
 Using bi-conical configuration
 All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the above